

Recovery Plan Action Status

Plan Name: Shiny Pigtoe Pearly Mussel

Plan Status: Final

Plan Date: 09-Jul-84

Lead Agency: USFWS

Lead Office: Asheville Ecological Services Field Office

(258-3939)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Shiny pigtoe (Fusconaia cor)	1	1	Preserve presently known populations and habitat	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Endangered Species Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, Virginia Commission of Game and Inland Fisheries	Other: Administration, Other: Information and Education, Other: Law Enforcement, Other: Regulations	Internal Administrative, Internal Technical Assistance, Species Expert	*1. See general categories for Implementation Schedules. *2, Other agencies' responsibility would be of a cooperative nature or projects funded under a contract or grant program. In some cases contracts could be let to universities or private enterprises. *3. Note: Task costs have not been estimated for this plan. This species exists with other listed mussels in the same river systems. Thus, a task aimed at this species will benefit others. Rather than attempting to apportion the costs to each species, recovery tasks will be estimated at a later date when the plans are combined on a watershed basis for implementation.

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Shiny pigtoe (Fusconaia cor)	3	1.1.1	Determine species' present distribution and range	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, Virginia Commission of Game and Inland Fisheries	Research: Habitat Status, Research: Population Surveys	Contract, Graduate Student, Internal Field Assistance, Species Expert	Populations of this species remain in four rivers: Clinch, (VA?TN; Powell, VA/TN; North Fork Holston, VA; and Paint Rock, AL.
Shiny pigtoe (Fusconaia cor)	2	1.1.2	Describe species habitat	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program	Research: Habitat Requirements, Research: Habitat Status	Contract, Graduate Student, Internal Field Assistance, Species Expert	A grad student at VPI conducted a life history study of this species in 1985 and included some basic habitat data.

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Shiny pigtoe (Fusconaia cor)	2	1.1.3	Disseminate distribution and habitat data to appropriate public and private agencies	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, Virginia Commission of Game and Inland Fisheries	Other: Information and Education	Internal Technical Assistance, Species Expert	
Shiny pigtoe (Fusconaia cor)	1	1.2	Identify current and future anthropogenic threats and take action to mitigate or eliminate	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Endangered Species Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, Virginia Commission of Game and Inland Fisheries	Research: Environmental Contaminants, Research: Other Information	Contract, Graduate Student, Internal Field Assistance, Species Expert	Coal mining activities are a major concern to both remaining populations. Current energy demands appear to be increasing, thus placing this species at greater risk of endangerment. Project money continues to be allocated to determine the effects of coal mining activities on mussels. The Service and its partners are working with the mining industry and Federal regulators on ways to improve mining activities to help protect mussel habitat.

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Shiny pigtoe (Fusconaia cor)	2	1.3	Solicit support for protection and recovery of species	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Endangered Species Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, TN and VA Nature Conservancy, Virginia Commission of Game and Inland Fisheries	Other: Administration, Other: Information and Education	Internal Technical Assistance, Species Expert, Volunteer	
Shiny pigtoe (Fusconaia cor)	1	2	Conduct life history research	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, Virginia Commission of Game and Inland Fisheries	Research: Competition, Research: Demographic Studies, Research: Disease, Research: Migration, Research: Other Information, Research: Predation, Research: Propagation	Contract, Graduate Student, Internal Field Assistance, Species Expert	A grad student at VPI conducted a life history study of this species in 1985. Some additional host fish research has since been conducted. Being a short-term brooder, it is difficult to propagate due to having a short spawning season. A new project should shed more light on developing propagation technology for this species.

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Shiny pigtoe (Fusconaia cor)	3	3.1	Locate suitable sites for potential introductions	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, Virginia Commission of Game and Inland Fisheries	Research: Reintroduction	Contract, Graduate Student, Internal Field Assistance, Species Expert	Six rivers have been identified as potential reintroduction sites for this species. This list may change depending on changes in habitat availability and threats.
Shiny pigtoe (Fusconaia cor)	3	3.2	Develop a successful method for introductions	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, Virginia Commission of Game and Inland Fisheries	Management: Reintroduction, Research: Reintroduction	Contract, Graduate Student, Internal Field Assistance, Species Expert	

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Shiny pigtoe (Fusconaia cor)	3	3.3-3.4	Introduce mussels, use of experimental populations will be considered on a case-by-case basis	Not Started			U.S. Fish and Wildlife Service, Endangered Species Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, Virginia Commission of Game and Inland Fisheries	Research: Propagation, Research: Reintroduction	Contract, Graduate Student, Internal Field Assistance, Species Expert	Although this species is included in a 17-species NEP on the Tennessee River, AL, it has not been reintroduced there pending further developments in ongoing propagation technology (see Action 2).
Shiny pigtoe (Fusconaia cor)	2	4	Outlined and implement a schedule to monitor population levels and trends	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, Virginia Commission of Game and Inland Fisheries	Research: Habitat Status, Research: Population Surveys	Contract, Graduate Student, Internal Field Assistance, Species Expert	Fixed monitoring sites for quantitative sampling have been established in the Clinch and Powell Rivers, TN/VA, since 1979 and sampled every ~5 years. Recent survey work in the upper North Fork Holston and Paint Rock Rivers has shed light on population trends in those streams. In 2007, 5 individuals were tagged at the Cleveland Islands site on upper Clinch River, VA. This site is being monitored annually for this species and another listed mussel.

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Shiny pigtoe (Fusconaia cor)	2	5	Evaluate success of individual activities and overall recovery program	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Endangered Species Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, USFWS Regional Office 5, Tennessee Heritage Program, TN and VA Nature Conservancy, Virginia Commission of Game and Inland Fisheries	Other: Administration	Internal Administrative	Propagation technology development appears to be a major constraint on this species' recovery (see Action 2).